Quaternity™ by DAIKIN

FTXG

RXG

ARC

Quaternity incorporates **extensive technological innovations** giving features and benefits that deliver a solution significantly superior to a traditional "mini split" system. The system delivers **one of the highest efficiencies** on the market, with added features such as being able to **set and monitor relative humidity**, an integrated **air cleaner** module, and an excellent range of cooling and heating capacities. Quaternity represents a solution offering **complete peace of mind**.

Dehumidifying Function

Set your preferred humidity set-point for your optimum comfort and Quaternity will do the rest.

Cleaner Air

Daikin's advanced Flash Streamer air purifying unit effectively eliminates all unpleasant odors, such as cooking odors, pet odors, cigarette smoke, allergens, viruses and bacteria.

User Friendly

Take advantage of the simple to use Wireless Remote Controller and abundance of functions to set your Quaternity System exactly to your liking.

Energy Savings

Operate Quaternity with the comfort of knowing its INVERTER compressor and innovative technology is one of the most energy efficient systems available on the market today.

HEAT PUMP INVERTER R-410A

ARI PERFORMANCE CERTIFIED ARI Standard 210/240 Unitary Small HP

ENERGY STAR

Quaternity units are ARI 210/240 performance certified and have earned the Energy Star label

Industry First!

Heat pump systems have evolved in recent times and now provide an effective solution for cooling and heating, giving you the ability to control the temperature all year round.

There is more than just a pleasant temperature needed to enjoy a comfortable indoor climate. Precise adjustment of the humidity level in a room is also of prime importance. However, this has not been possible with conventional air conditioners.

Until now ...

Daikin's new Quaternity split air conditioning unit, with its unique system, can dehumidify and purify the indoor air all at the same time. The ideal solution for ideal living comfort in all seasons. Perfect, just the way you like it.

- Up to SEER 22 and EER 15.8, one of the highest energy efficiencies in the market
- Ability to dehumidify to a relative humidity set-point (RH%)
- "Flash Streamer" air cleaner for improved IAQ
- Simple to use wireless infra-red remote controller shows ambient temperature and room temperature
- Comfort and sound set-back ability
- Quiet operation
- Excellent delivered capacity

GOOD DESIGN AWARD IN JAPAN

Quaternity received the distinguished "Good Design Award", the unique evaluation criterion for industrial design in Japan. Daikin, on various occasions, has also been commended for applying innovative technology in its air purifiers: the UK Allergy Certificate and the Daikin TüV Award confirm the efficiency of the appliances.

Quaternity Indoor Units - FTXG_HVJU Wall Mounted Units. For use with RXG_HVJU Models					
Model			FTXG09HVJU	FTXG12HVJU	FTXG15HVJU
Cooling Capacity (min. - nom. - max.)		Btu/h	5,300 - 9000 - 12,300	5,300 - 12,000 - 15,700	5,300 - 15,000 - 18,000
Heating Capacity (min. - nom. - max.)		Btu/h	4,400 - 12,000 - 18,000	4,400 - 16,000 - 19,100	4,400 - 18,000 - 21,200
Heating Capacity at 17 °F		Btu/h	8,100	10,800	12,200
Moisture Removal		Pt/h	3.38	4.86	5.92
Airflow - Dry		cfm	438	470	494
Sound Pressure Level - Cooling (H/M/L)		dB(A)	42/33/26	43/35/27	45/37/29
Sound Pressure Level - Heating (H/M/L)		dB(A)	42/35/28	43/36/29	44/38/31
Piping Connections	**Liquid (O.D.)**	in.	ϕ1/4	ϕ1/4	ϕ1/4
	Gas (O.D.)	in.	ϕ3/8	ϕ3/8	ϕ3/8
	Condensate (O.D.)	in.	ϕ11/16	ϕ 11/16	ϕ 11/16
Dimensions (H x W x D)		in.	← 12 x 35 1/32 x 8 7/32 →		
Weight		lbs.	31	31	31
Wireless Remote Controller (standard)			ARC447A3	ARC447A3	ARC447A3
Optional Condensate Pump			DACA-CP1-1	DACA-CP1-1	DACA-CP1-1
Quaternity Outdoor Units - RXG_HVJU For use with the FTXG_HVJU Models					
Model			RXG09HVJU	RXG12HVJU	RXG15HVJU
Compressor Type			← Hermetically sealed swing type compressor →		
Max. Fuse Size		Amps	15	15	15
Energy Efficiency		SEER	22	22	21
Energy Efficiency		EER	15.8	14	12.9
Energy Efficiency		HSPF	11	10.55	10
Energy Efficiency		COP	4.51	4.04	3.99
Power Consumption - Cooling		W	570	860	1,160
Power Consumption - Heating		W	780	1,160	1,320
Sound Pressure Level (cooling/heating)		dB(A)	46/46	49/48	50/50
Operating Range - Cooling (outdoor-db)		°F	14 - 109	14 - 109	14 - 109
Operating Range - Heating (outdoor-db)		°F	-4 - 75	-4 - 75	-4 - 75
Operation Current - Cooling		A	3.1	4.3	5.64
Operation Current - Heating		A	4.04	5.64	6.36
Max. Piping Length		ft.	33	33	33
Max. Height Difference		ft.	26	26	26
Dimensions (H x W x D)		in.	← 22 3/8 X 31 9/32 X 11 7/32 →		
Weight		lbs.	99	99	99

Introducing **Pichon-Kun**

A mascot that represents Daikin's innovative thrust into the future. Created in Japan, this dew droplet represents the fresh, natural, and eco-friendly nature of Daikin's products.

Quaternity by DAIKIN

	High Energy Efficiency and **Low Estimated National Average Annual Operating cost***		
	9,000Btu/h Class	12,000Btu/h Class	15,000Btu/h Class
SEER	22	22	21
EER	15.8	14	12.9
Cooling cost	**$44**	**$59**	**$77**
HSPF	11	10.55	10
COP	4.51	4.04	3.99
Heating cost	**$157**	**$246**	**$346**

* All data is based on ARI 210/240 performance values

ARI PERFORMANCE CERTIFIED — ENERGY STAR

All Quaternity systems qualify for the U.S. Governments Tax Rebate Stimulus package.

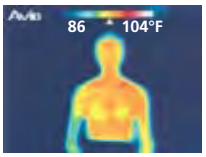
DEHUMIDIFICATION

without lowering the temperature

Dehumidification has many beneficial effects on comfort levels. During the summer, where there is an infiltration of high humidity ambient air, even during mild ambient conditions, the room can feel very hot and stuffy. With "Quaternity controlled dehumidification" the system controls the indoor humidity level by mixing the cool dry air with warm air via its intelligent indoor heat exchanger technology. Also, this feature prevents inefficient overcooling, which helps to save on energy use.

Without Quaternity

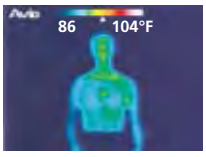
Room temperature 77°F
Humidity 80%



UNCOMFORTABLE
Hot and stuffy with high humidity.

Standard Unit

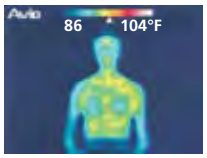
Room temperature 70°F
Humidity 45-50%



COLD DRAFT
The room is over cooled down to 70 °F to achieve safisfactory dehumidificaion. It results in an uncomfortable cold sensation.

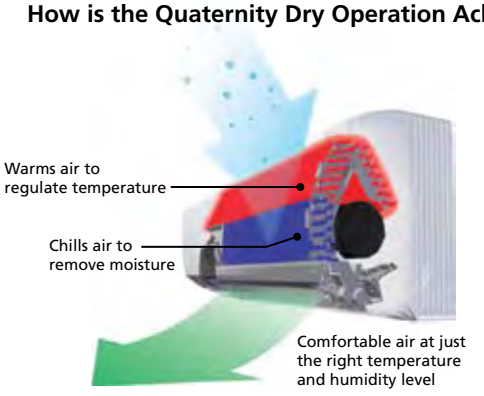
Quaternity by DAIKIN

Room temperature 77°F
Humidity 50%



COMFORTABLE
Decreasing humidity while maintaining the temperature increases comfort.

How is the Quaternity Dry Operation Achieved?


Warms air to regulate temperature
Chills air to remove moisture
Comfortable air at just the right temperature and humidity level

The evaporator of the indoor unit is divided into two sections and solenoid valves are provided in between. In cooling mode, the expansion valve between the condenser and the evaporator works to send low-pressure refrigerant to the indoor side, but in Quaternity Dry Operation, the expansion valve is kept open and a part of the indoor unit is used as a condenser by working the solenoid valve.

Quaternity™ by DAIKIN

flash streamer ONLY BY DAIKIN

Purifies and removes allergens from the air

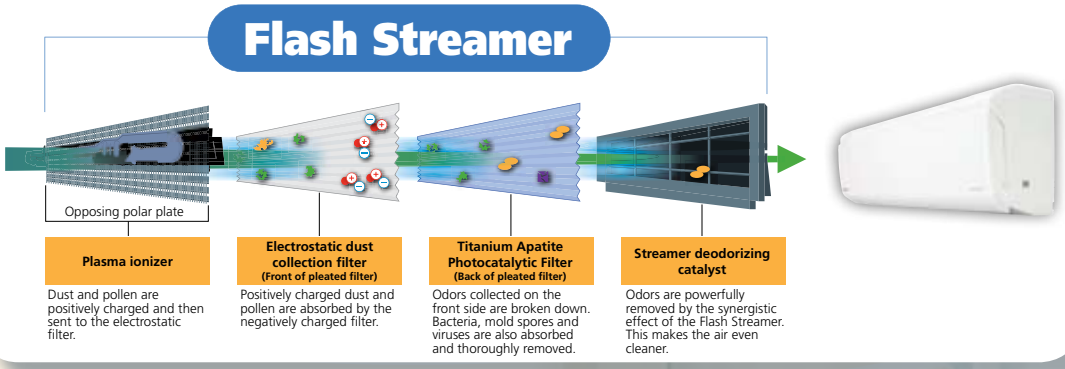
Increased indoor air quality with Daikin Flash Streamer technology

Flash Streamer technology is proven to deliver over 1,000 times faster purification versus normal "plasma" type systems.

Air is a transportation device for microorganisms which can cause infections or allergic reactions. A method to reduce the effect of microorganisms is to reduce the amount of time a person is exposed to them. This can be achieved with filtration but sometimes the wrong type of filtration can act as a breeding ground for the microorganisms. This is why Quaternity uses a multi-stage filtration and air cleaning system which incorporates the "Flash Streamer" to break down and decompose the microorganisms in a timely manner.

Did you know?

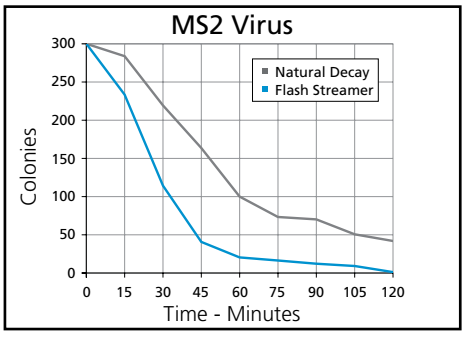
Using both the Flash Streamer and Titanium Apatite filter together produces a photocatylist two times more powerful than direct UV light.


Flash Streamer
Opposing polar plate
Plasma ionizer
Dust and pollen are positively charged and then sent to the electrostatic filter.
Electrostatic dust collection filter
(Front of pleated filter)
Positively charged dust and pollen are absorbed by the negatively charged filter.
Titanium Apatite Photocatalytic Filter
(Back of pleated filter)
Odors collected on the front side are broken down. Bacteria, mold spores and viruses are also absorbed and thoroughly removed.
Streamer deodorizing catalyst
Odors are powerfully removed by the synergistic effect of the Flash Streamer. This makes the air even cleaner.

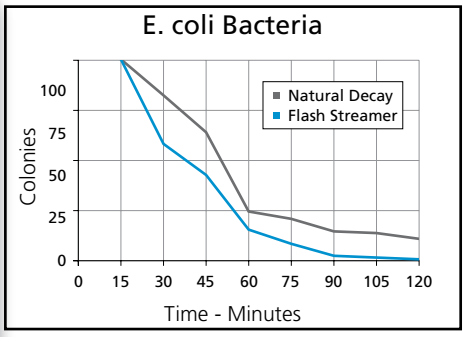
How is Quaternity Air Purification done?

The multi layered air purifying function powerfully decomposes and removes molecules of allergens and odors. In the indoor unit, the air will be filtered out of dust and pollen and the photocatalytic air purification filter will further decompose odors. The streamer discharges high energy electrons which analyzes, powerfully decomposes and removes molecules of allergens, odors, unwanted bacteria, and other hazardous chemical material by collision with high-speed electrons discharged from streamer unit.

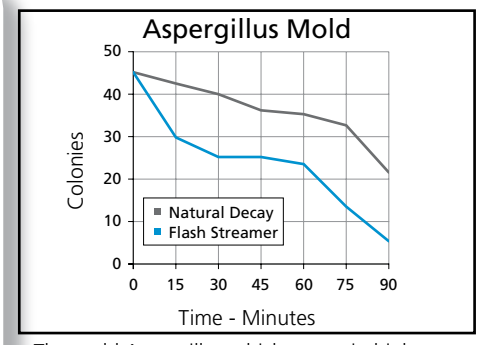
Independent laboratory testing was conducted on the Flash Streamer module in the United States showing the following results:



The MS2 coliphage was used to simulate a virus; this is an extensively studied method and is used as an indictor of a virus survival. It was released into the space and the Flash Streamer was activated. This was then compared to the same concentration of MS2 and the decomposition with natural ventilation. Within 120 minutes, 95.2% reduction compared to natural ventilation was observed.



The same test was carried out for E. coli and a reduction rate of 91% was realized.

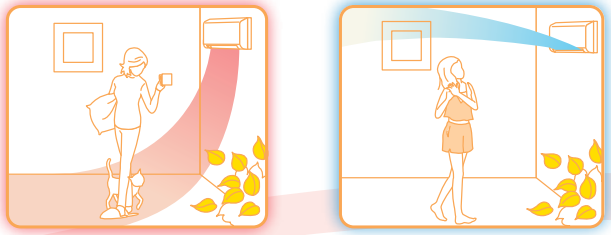


The mold Aspergillus which grows in high moisture climates was tested with the same method and achieved a reduction rate from natural ventilation of 75% over a 90 minute period.

ETL Report Number 3166807COL-001

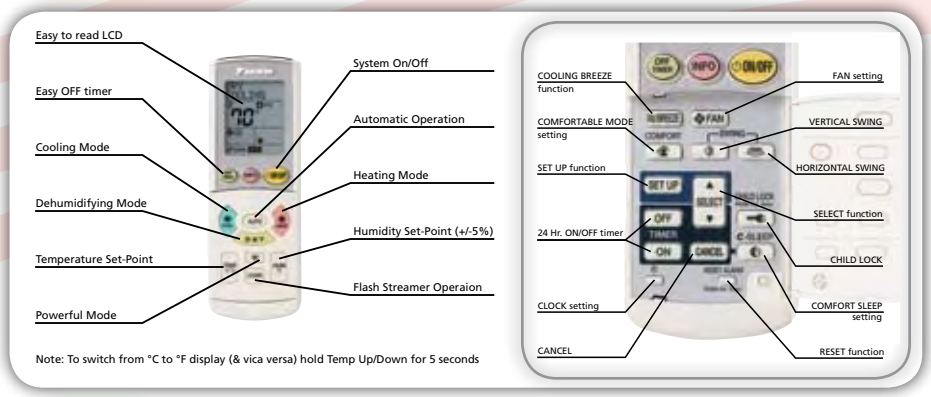
Advanced functions

Comfortable mode
In heating mode, the warm air is directed straight downward to your feet. In cooling mode, the cool air descends from the ceiling gradually throughout the entire room. The comfortable mode prevents air from blowing directly on the skin, which provides a gentle and comfortable environment.



Cooling breeze operation
The outflow sways gently up and down in a 1Hz rhythm. This frequency provides a comfortable cool breeze that feels natural and makes the room feel cool even though the temperature is set higher.

Comfort sleep operation
This feature controls the indoor temperature while you are asleep, helping to produce the pattern of body temperatures most conducive to restful sleep.
The comfortable sleep program controls the temperature in a V-shaped pattern. (Assuming 6 hours of sleep)



Air purifying operation
The air purifying function can be used alone or in combination with heating or cooling operation. It effectively cleans the air, eliminating microorganisms as well as unpleasant odors.

Temperature and humidity level information display
Using the INFO button on the remote control, you can display the current indoor temperature and humidity level. The display serves as a reference during humidifying or dehumidifying operation and allows detailed checking of the humidity level to help you prevent mold or dust mite proliferation.

Countdown off timer
Set the time until Quaternity will switch off (up to 9 ½ hours earlier) with the touch of a single button.

Child proof lock
This function allows to lock the operation of the system by pressing a button on the remote control.
The setting is controlled using the SET UP button.

Multi-colored indicator
The color of the indicator lamp on the indoor unit changes to match the current operating mode. It always shows the current mode even when operation is set to automatic.

Function List

Best in class!

Humidity Control
Dehumidification function
Dry cooling operation
Comfortable Airflow
Cooling breeze operation
Comfortable mode
Power-airflow dual flaps
Wide-angle louvers
Vertical auto-swing (up and down)
Horizontal auto-swing (left and right)
3-D airflow
Comfort Control
Comfort sleep operation
Auto fan speed
Indoor unit quiet operation
Automatic operation
Lifestyle Convenience
Multi-colored indicator
Monitor brightness setting
Temperature & humidity level information display
Child proof lock
Inverter powerful mode
Indoor unit on/off switch
Cleanliness
Air purifying operation
Titanium apatite photocatalytic air-purifying filter
Air supply filter
Flash streamer air purifying
Mold proof air filter
Wipe-clean flat panel
Filter cleaning indicator
Mold proof stick
Timers
Countdown off timer
24-hour on/off timer
Night set mode
Worry Free
Auto-restart after power failure
Self-diagnosis with digital display
Anticorrosion treatment of outdoor heat exchanger fins